Title: System and Method for Generating Data Structures for a Hyperlinked Television Bro[illegible]t
Inventor(s): Dakss et al.
Serial No.: 09/697,775
Atty Docket No.: WMI-004CN4
Atty/Agent: Joseph B. Milstein

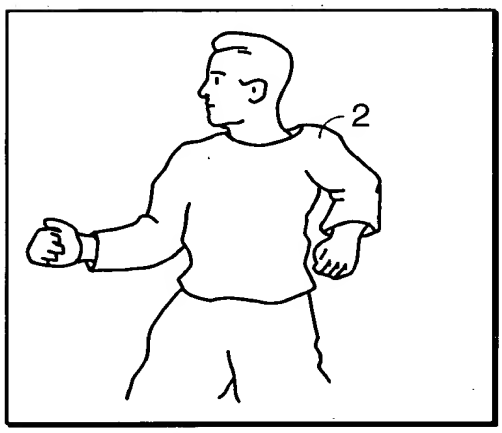

FIG. 1A

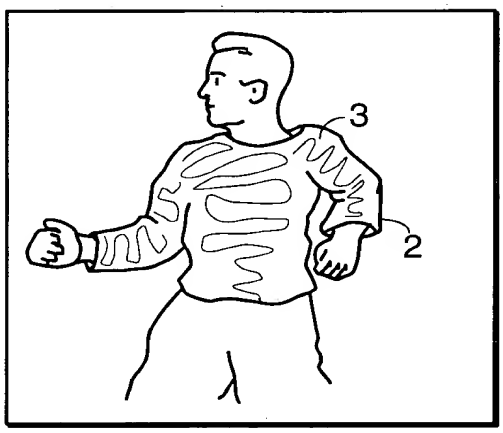

FIG. 1B

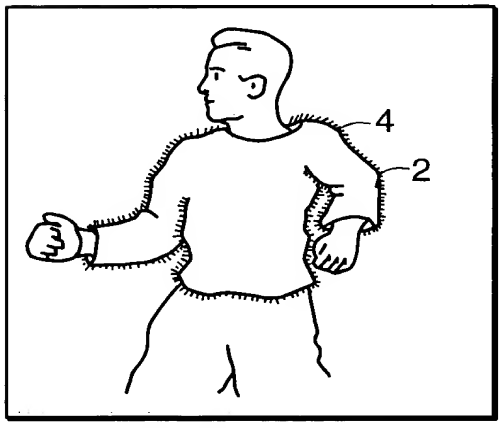

FIG. 1C

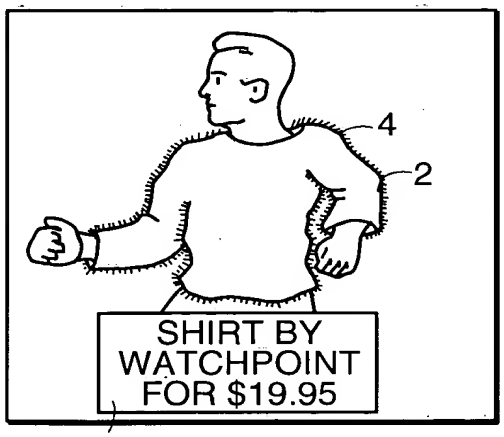

FIG. 1D

Title: System and Method for Generating Data Structures for a Hyperlinked Television Bro
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Atty Docket No.: WMI-004CN4
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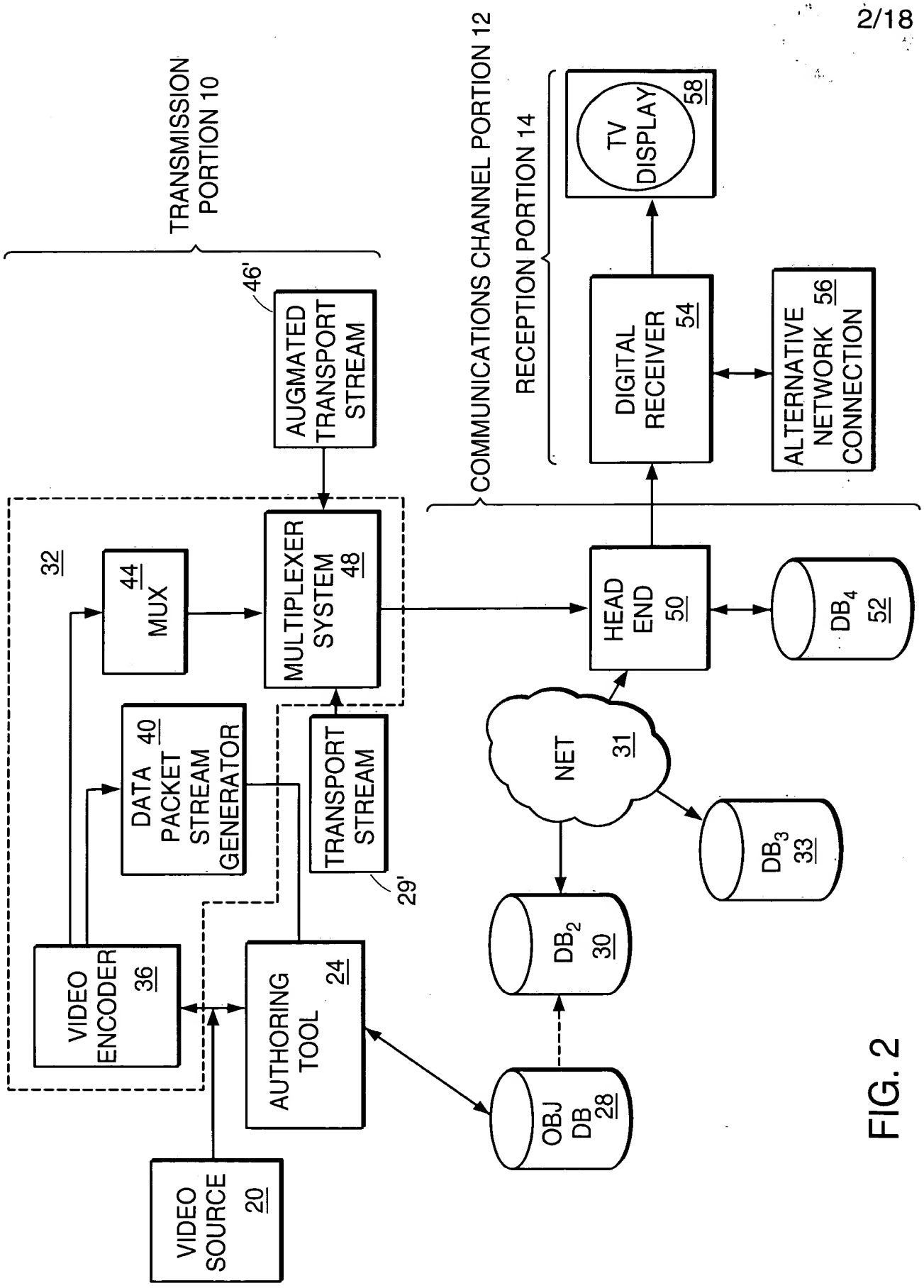

FIG. 2

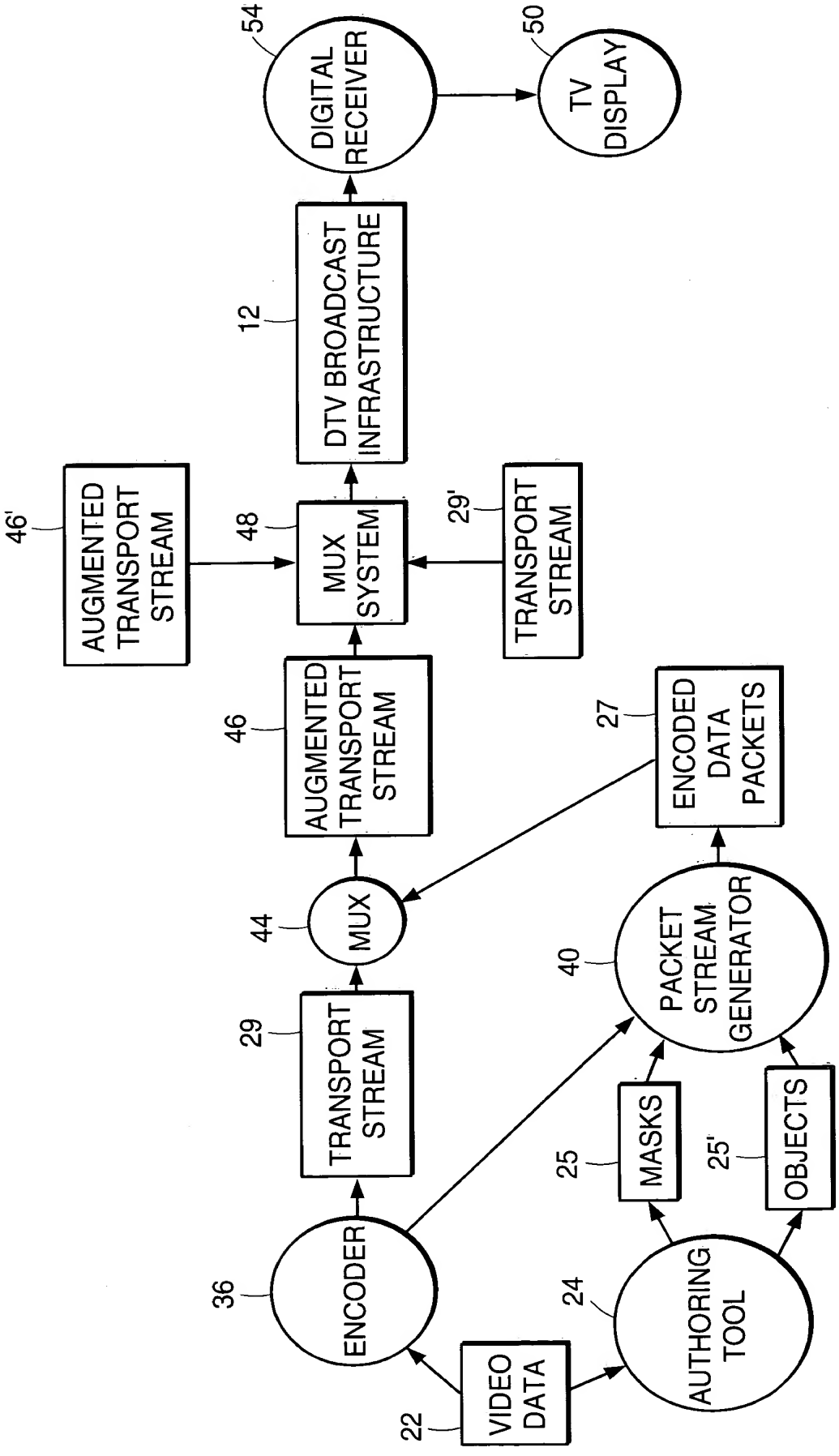
22
VIDEO DATA
36
ENCODER
24
AUTHORING TOOL
25
MASKS
25'
OBJECTS
40
PACKET STREAM GENERATOR
27
ENCODED DATA PACKETS
29
TRANSPORT STREAM
44
MUX
46
AUGMENTED TRANSPORT STREAM
48
MUX SYSTEM
46'
AUGMENTED TRANSPORT STREAM
29'
TRANSPORT STREAM
12
DTV BROADCAST INFRASTRUCTURE
54
DIGITAL RECEIVER
50
TV DISPLAY

FIG. 2A

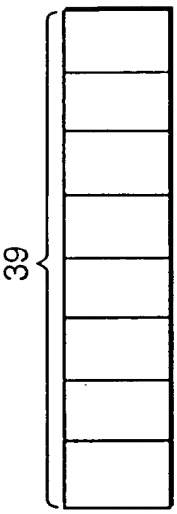

FIG. 2B

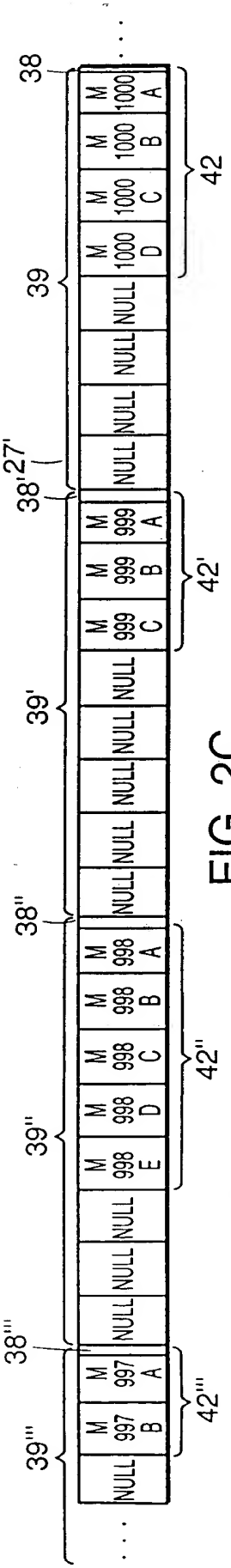

FIG. 2C

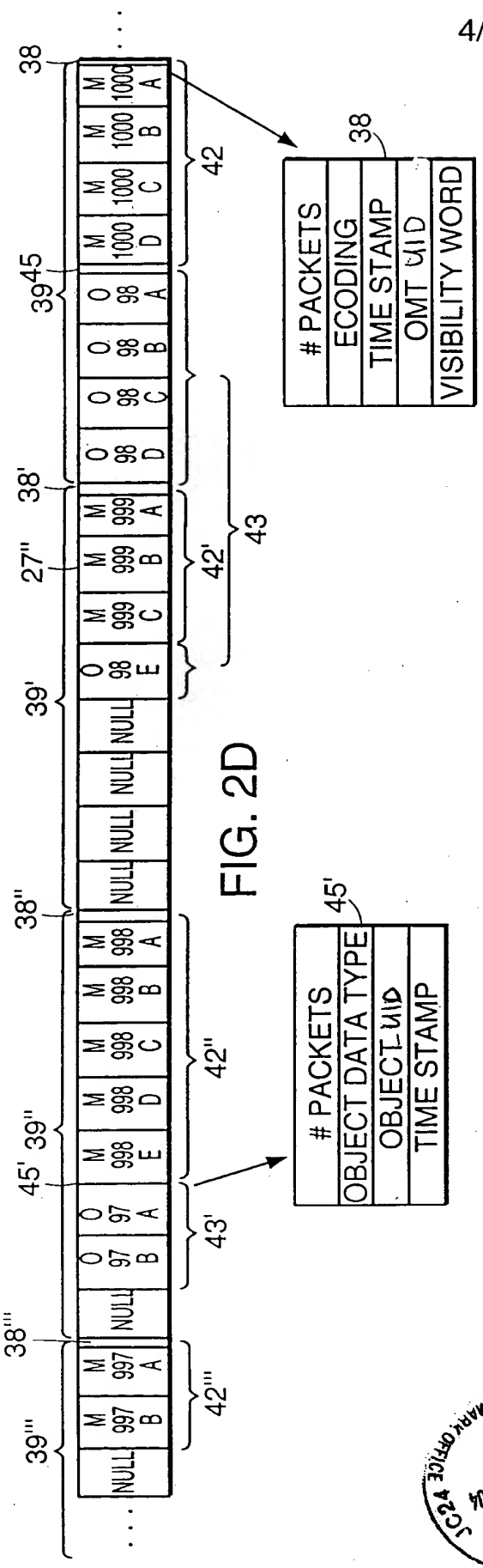

FIG. 2D

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APR 26 2004
TC 2424

Title: System and Method for Generating Data Structures for a Hyperlinked Television Broadcast
Inventor(s): Dakss et al.
Serial No.: 09/697,775
Atty Docket No.: WMI-004CN4
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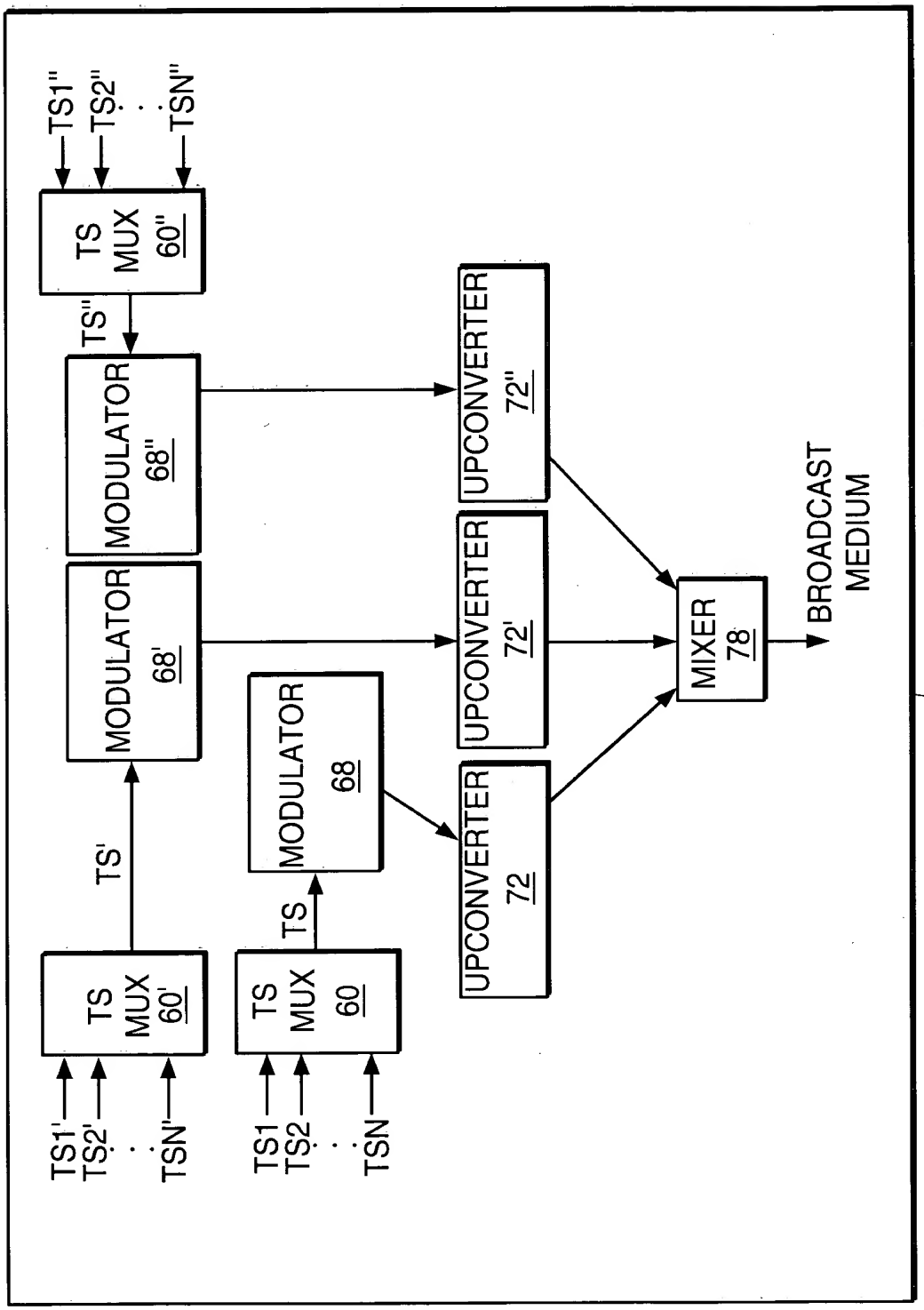

FIG. 3

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Inventor(s): Dakss et al.
Serial No.: 09/697,775
Atty Docket No.: WMI-004CN4
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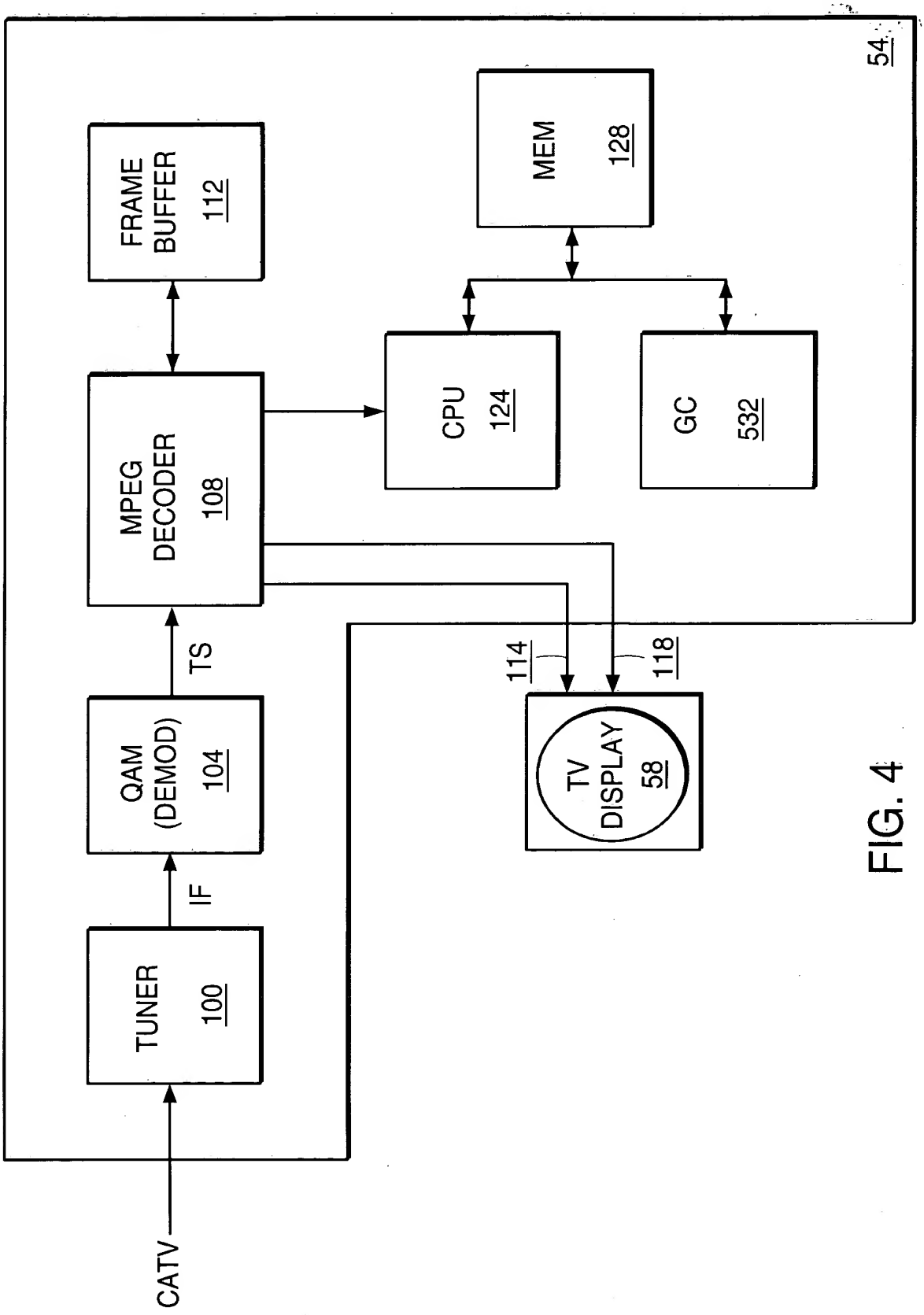

FIG. 4

Title: System and Method for Generating Data Structures for a Hyperlinked Television Broa
Inventor(s): Dakss et al.
Serial No.: 09/697,775
Atty Docket No.: WMI-004CN4
Atty/Agent: Joseph B. Milstein

FIG. 5-1	FIG. 5-2

FIG. 5

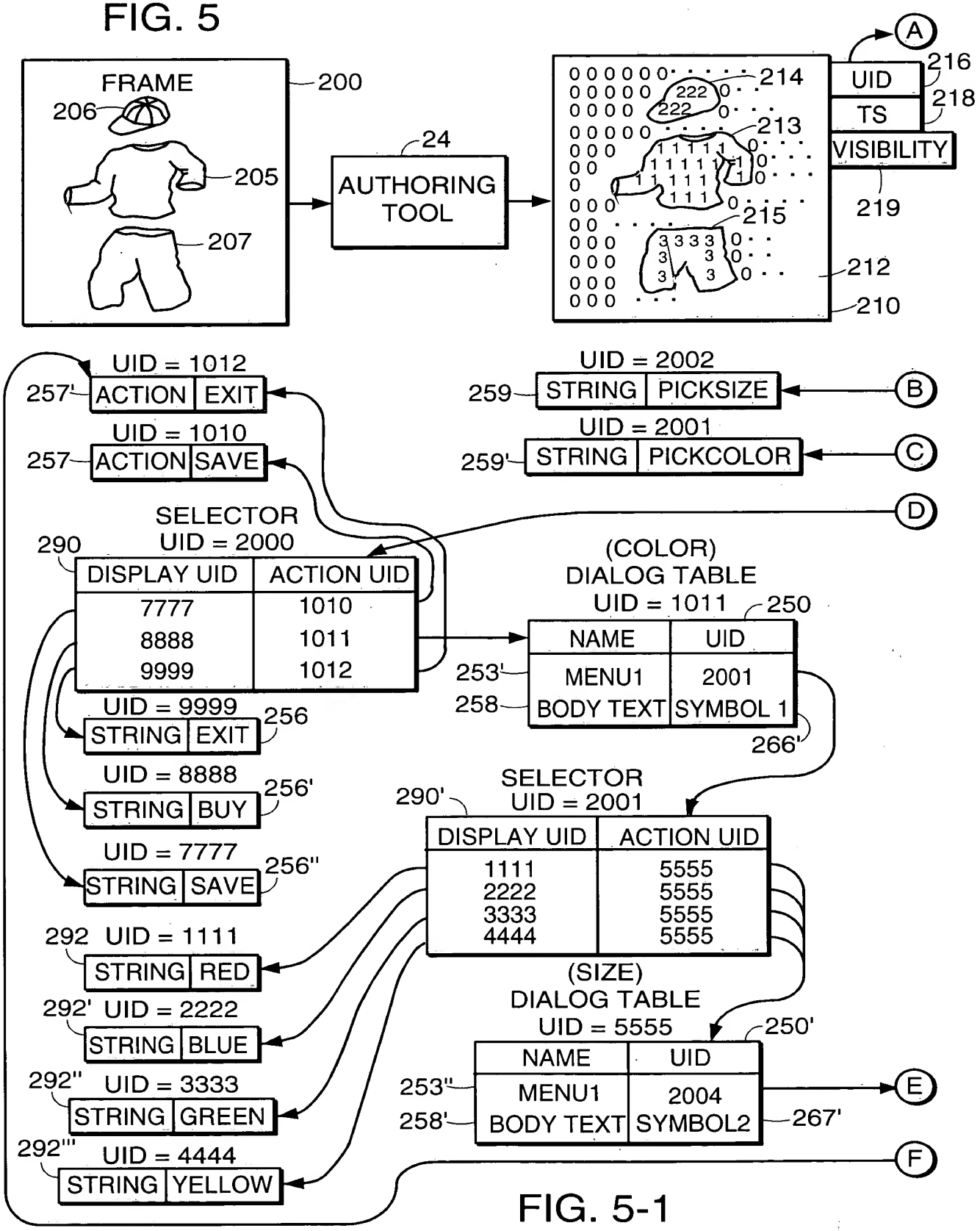

FIG. 5-1

Title: System and Method for Generating Data Structures for a Hyperlinked Television Broadcast
Inventor(s): Dakss et al.
Serial No.: 09/697,775
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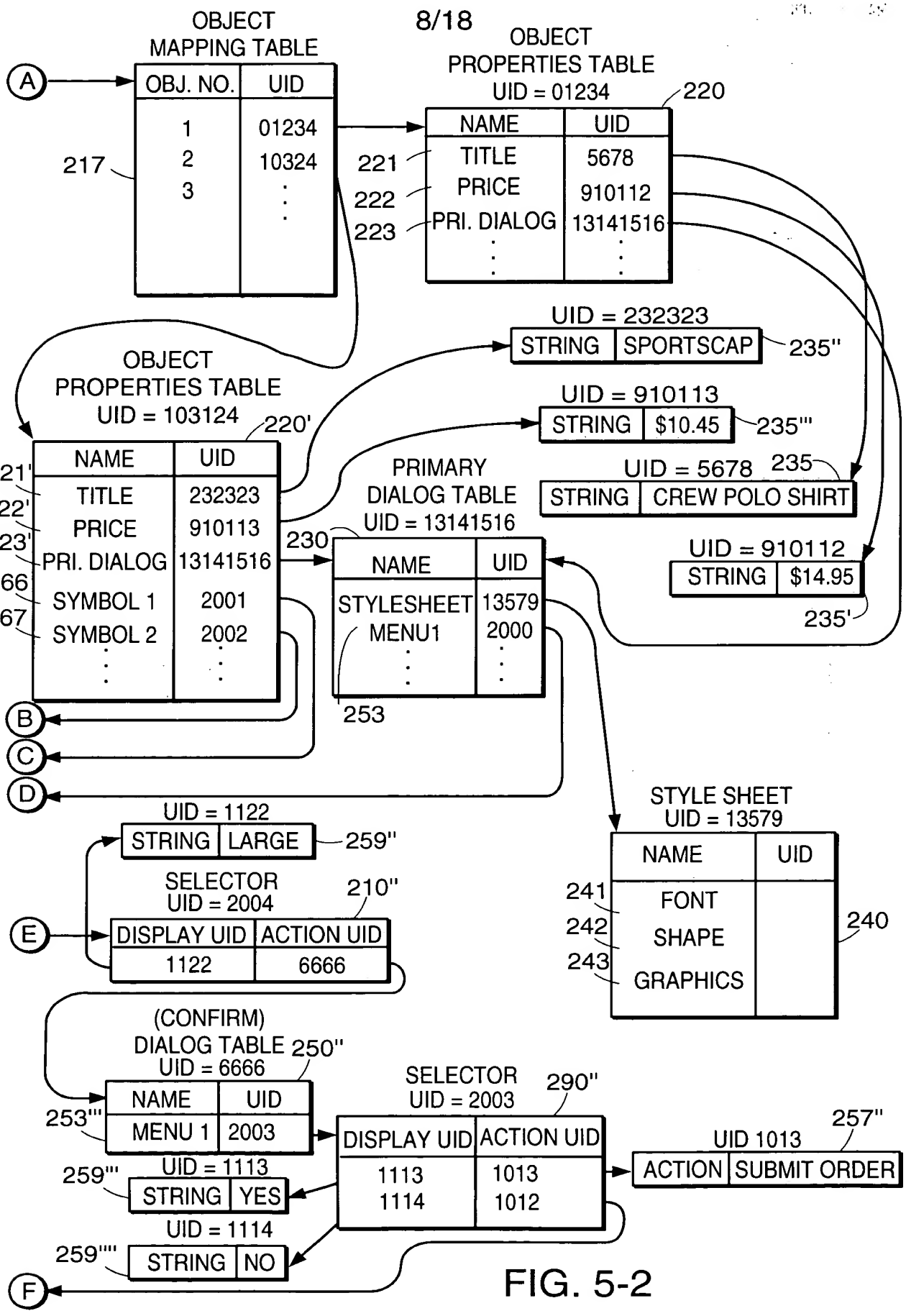

FIG. 5-2

Title: System and Method for Generating Data Structures for a Hyperlinked Television Broadcast
Inventor(s): Dakss et al.
Serial No.: 09/697,775
Atty Docket No.: WMI-004CN4
Atty/Agent: Joseph B. Milstein

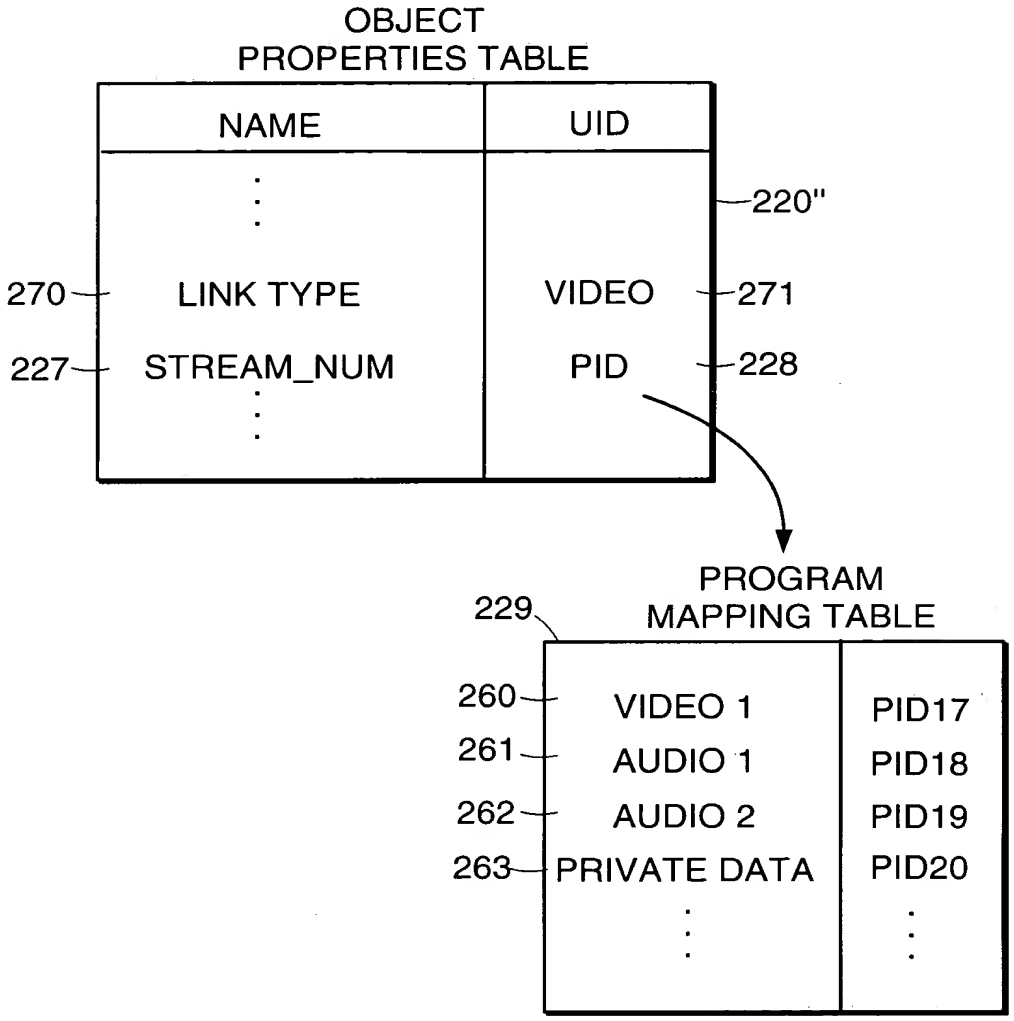

FIG. 5A

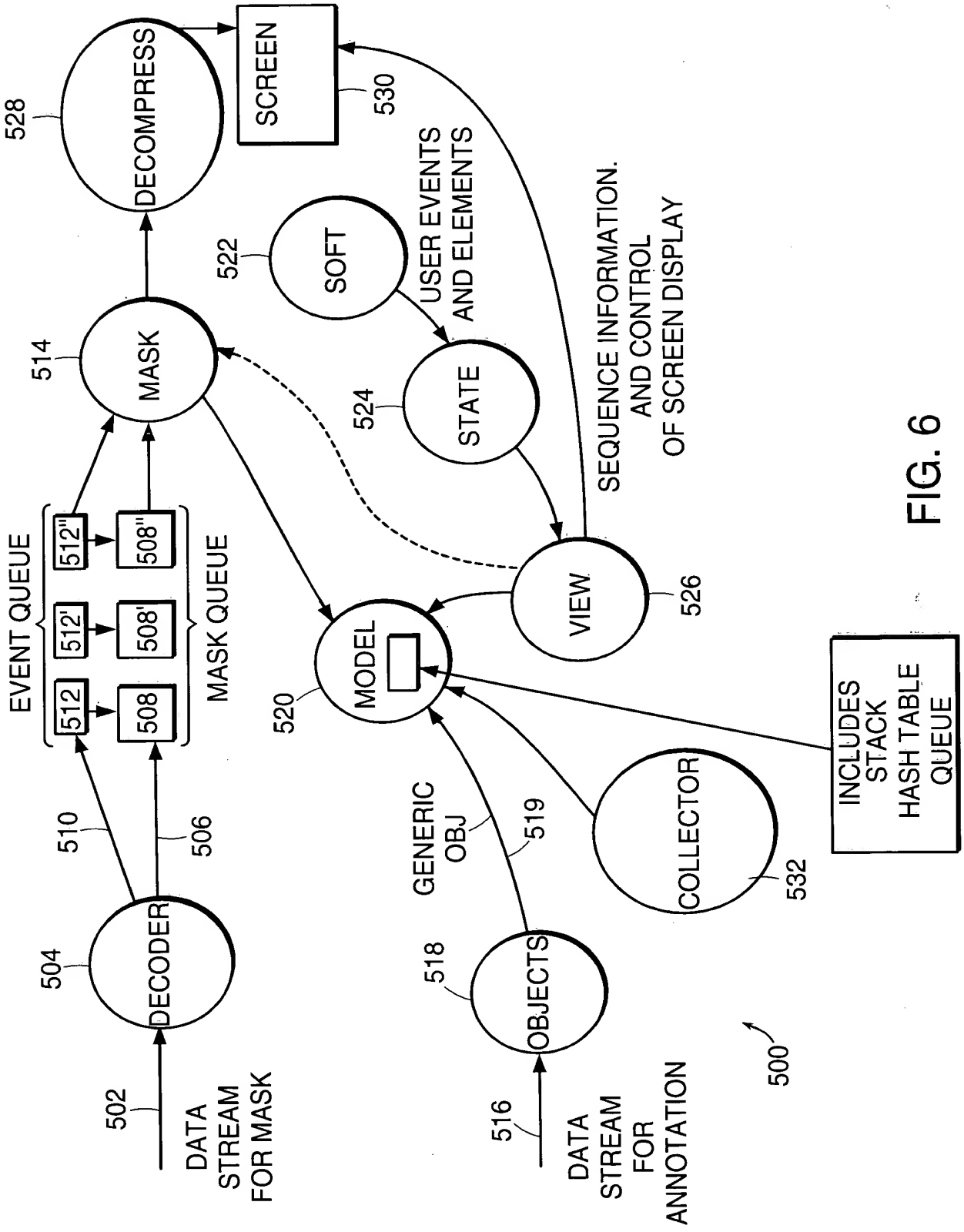
DECOMPRESS
528
SCREEN
530
SOFT
522
USER EVENTS AND ELEMENTS
MASK
514
STATE
524
SEQUENCE INFORMATION. AND CONTROL OF SCREEN DISPLAY
EVENT QUEUE
512"
512'
512
508"
508'
508
MASK QUEUE
VIEW
526
MODEL
520
INCLUDES STACK HASH TABLE QUEUE
510
506
GENERIC OBJ
519
COLLECTOR
532
DECODER
504
OBJECTS
518
502
DATA STREAM FOR MASK
516
DATA STREAM FOR ANNOTATION
500

FIG. 6

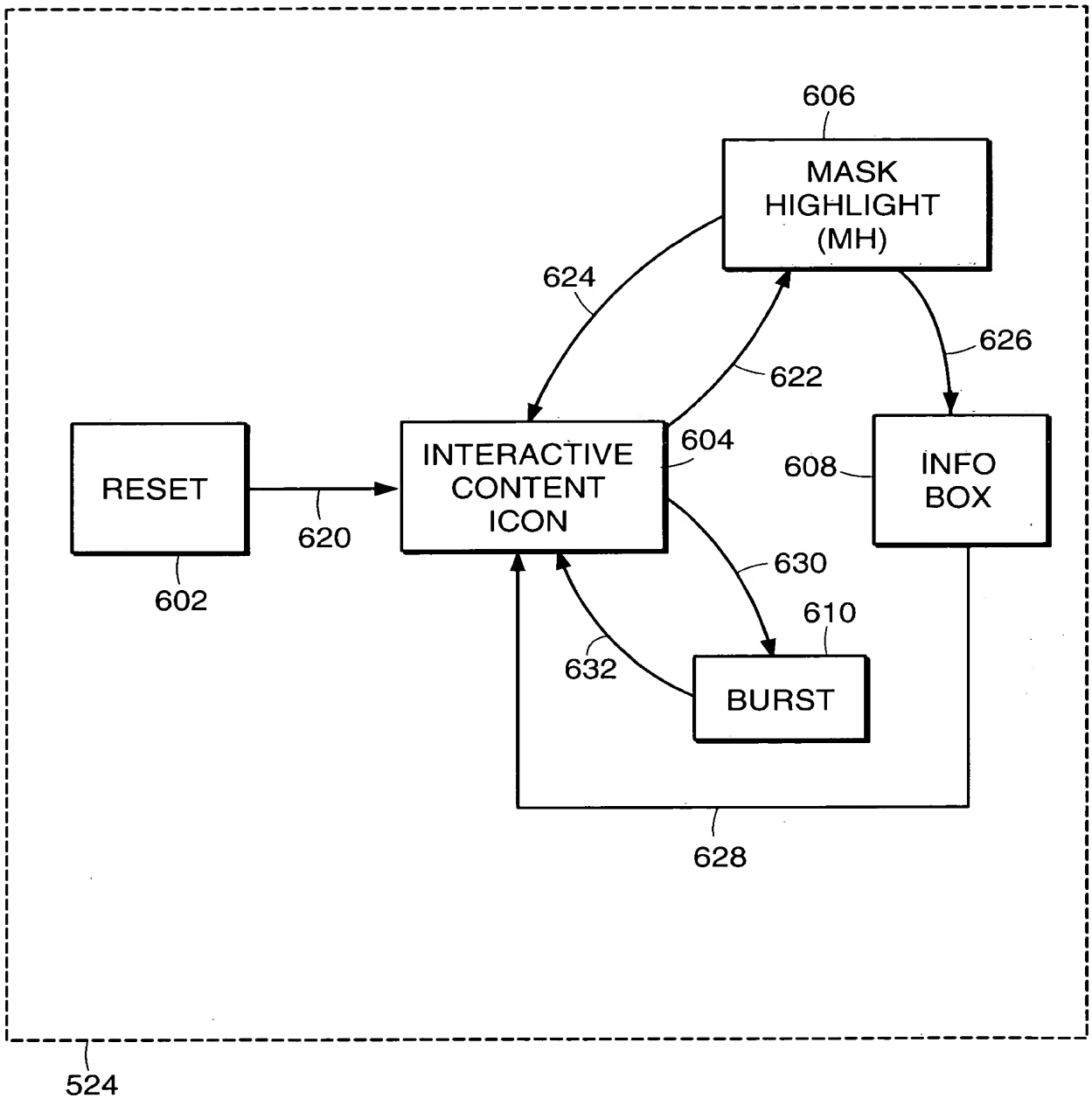
606
MASK HIGHLIGHT (MH)
624
626
622
RESET
INTERACTIVE CONTENT ICON
604
608
INFO BOX
620
602
630
610
632
BURST
628
524

FIG. 7

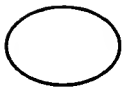

FIG. 8A

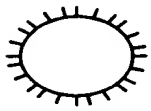

FIG. 8B

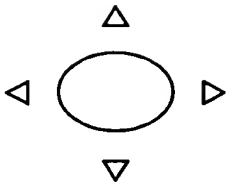

FIG. 8C

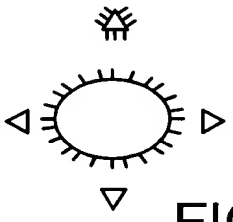

FIG. 8D

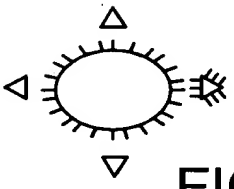

FIG. 8E

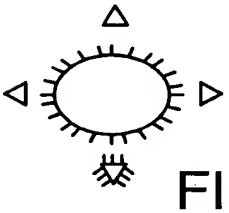

FIG. 8F

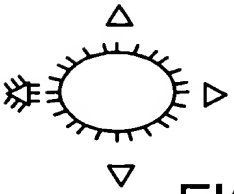

FIG. 8G

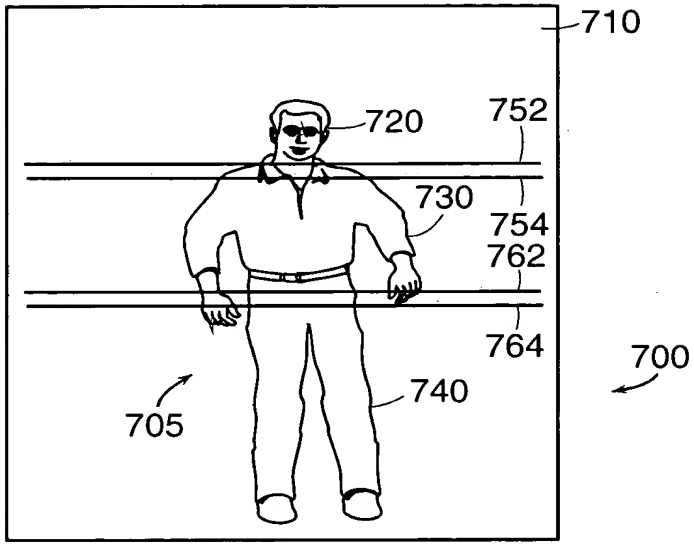

FIG. 9A

NO. ROWS (=3)
ROW 1: ($COLOR_1$, N_1), ($COLOR_2$, N_2), ($COLOR_3$,N_3), ... ($COLOR_N$, N_N)
ROW 2: N_1, N_2, N_3, ..., N_N
ROW 3: N_1, N_2, N_3, ..., N_N

FIG. 9B

(VALUE INDICATOR OF COLOR, RUN LENGTH, OFFSET)

FIG. 9C

NO. ROWS (=3)
ROW 1: ($COLOR_1$, $RUNLENGTH_1$,$OFFSET_1$), ($COLOR_2$, $RUNLENGTH_2$,$OFFSET_2$) ....($COLOR_N$, $RUNLENGTH_N$,$OFFSET_N$)
ROW 2: ($RUNLENGTH_1$,$OFFSET_1$), ($RUNLENGTH_2$,$OFFSET_2$),....($RUNLENGTH_N$,$OFFSET_N$)
ROW 3: ($RUNLENGTH_1$,$OFFSET_1$), ($RUNLENGTH_2$,$OFFSET_2$),....($RUNLENGTH_N$,$OFFSET_N$)

FIG. 9D

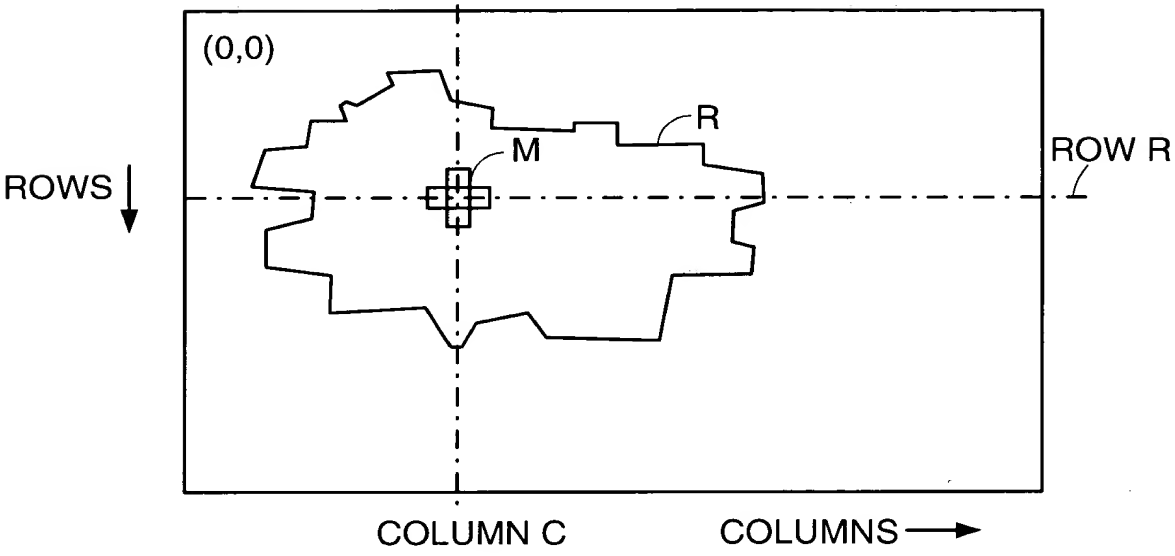

FIG. 10A

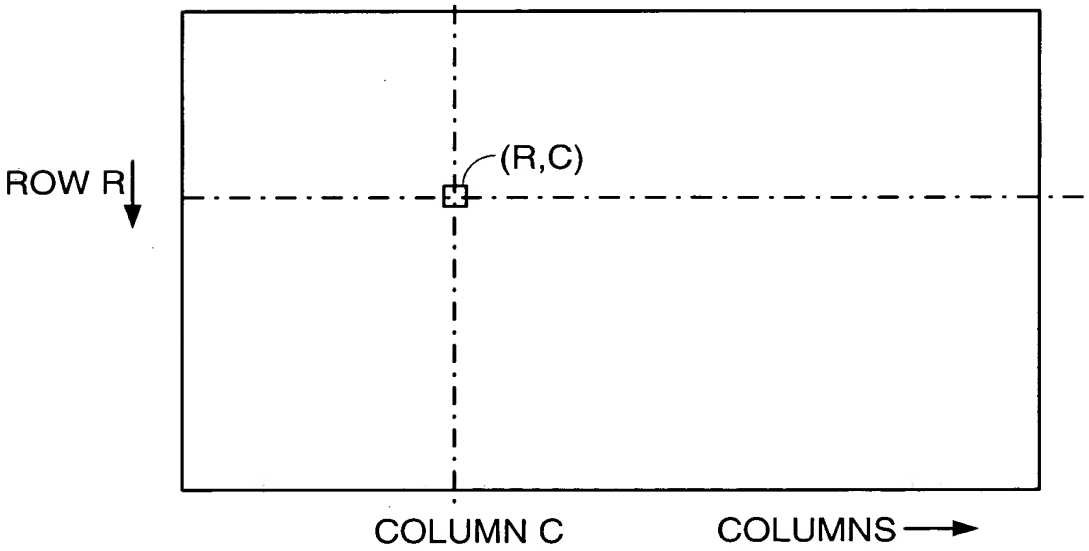

FIG. 10B

Title: System and Method for Generating Data Structures for a Hyperlinked Television Broadcast
Inventor(s): Dakss et al.
Serial No.: 09/697,775
Atty Docket No.: WMI-004CN4
Atty/Agent: Joseph B. Milstein

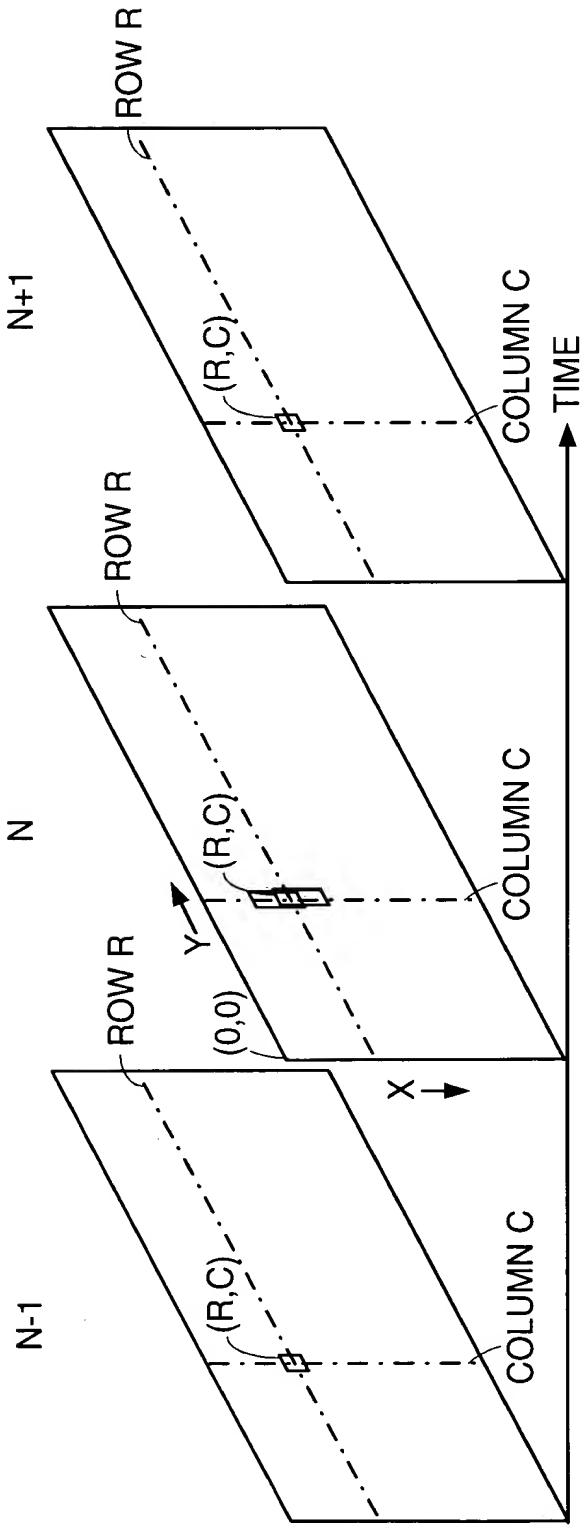

FIG. 11A

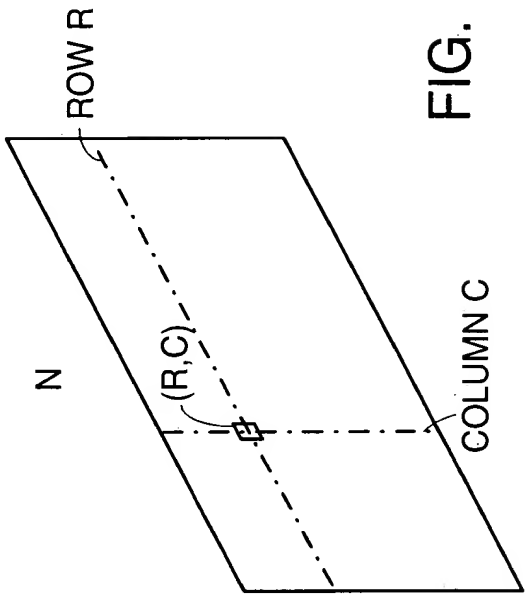

FIG. 11B

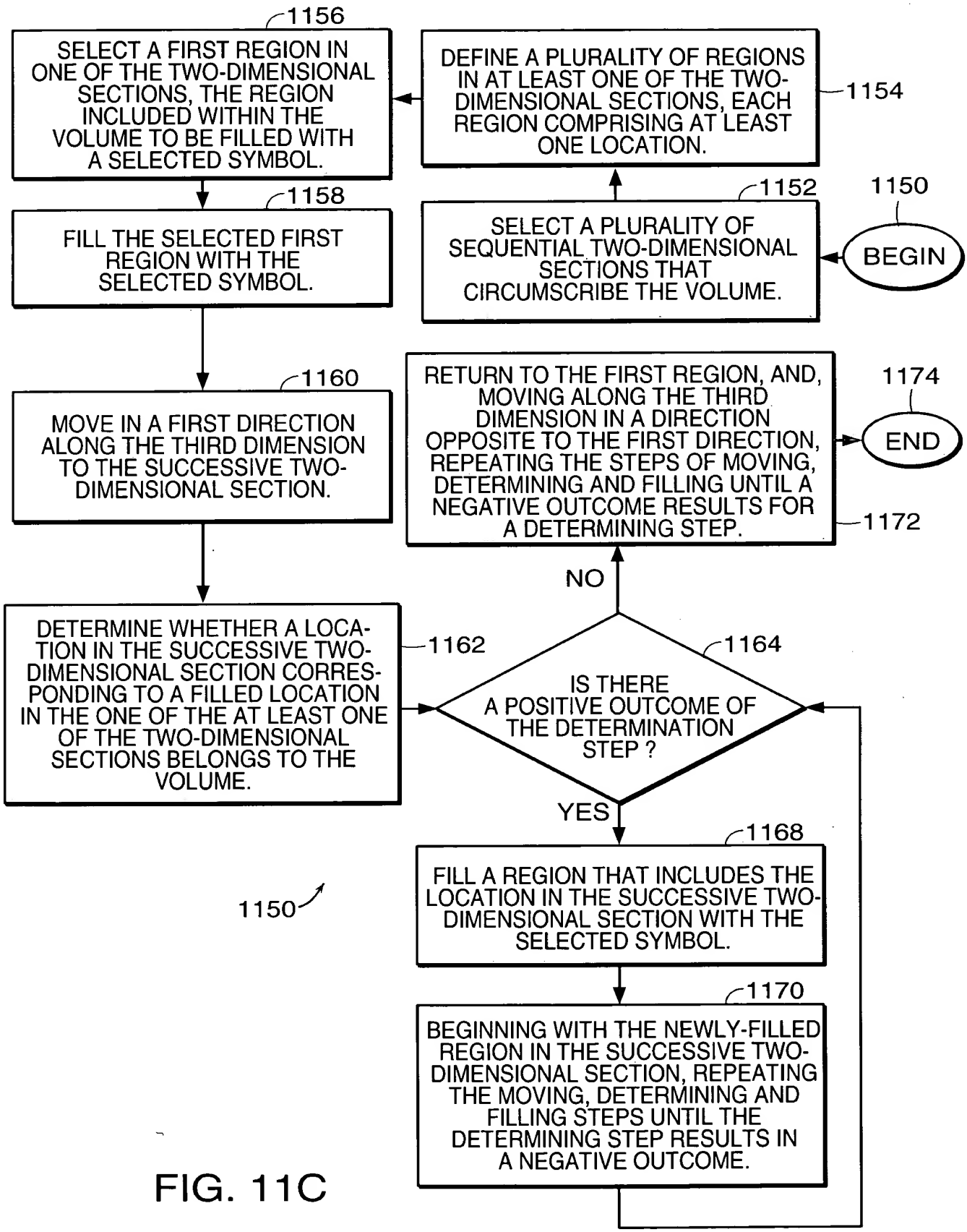
1156
SELECT A FIRST REGION IN ONE OF THE TWO-DIMENSIONAL SECTIONS, THE REGION INCLUDED WITHIN THE VOLUME TO BE FILLED WITH A SELECTED SYMBOL.
DEFINE A PLURALITY OF REGIONS IN AT LEAST ONE OF THE TWO-DIMENSIONAL SECTIONS, EACH REGION COMPRISING AT LEAST ONE LOCATION.
1154
1158
FILL THE SELECTED FIRST REGION WITH THE SELECTED SYMBOL.
1152
SELECT A PLURALITY OF SEQUENTIAL TWO-DIMENSIONAL SECTIONS THAT CIRCUMSCRIBE THE VOLUME.
1150
BEGIN
1160
MOVE IN A FIRST DIRECTION ALONG THE THIRD DIMENSION TO THE SUCCESSIVE TWO-DIMENSIONAL SECTION.
RETURN TO THE FIRST REGION, AND, MOVING ALONG THE THIRD DIMENSION IN A DIRECTION OPPOSITE TO THE FIRST DIRECTION, REPEATING THE STEPS OF MOVING, DETERMINING AND FILLING UNTIL A NEGATIVE OUTCOME RESULTS FOR A DETERMINING STEP.
1174
END
1172
NO
DETERMINE WHETHER A LOCATION IN THE SUCCESSIVE TWO-DIMENSIONAL SECTION CORRESPONDING TO A FILLED LOCATION IN THE ONE OF THE AT LEAST ONE OF THE TWO-DIMENSIONAL SECTIONS BELONGS TO THE VOLUME.
1162
1164
IS THERE A POSITIVE OUTCOME OF THE DETERMINATION STEP ?
YES
1168
FILL A REGION THAT INCLUDES THE LOCATION IN THE SUCCESSIVE TWO-DIMENSIONAL SECTION WITH THE SELECTED SYMBOL.
1170
BEGINNING WITH THE NEWLY-FILLED REGION IN THE SUCCESSIVE TWO-DIMENSIONAL SECTION, REPEATING THE MOVING, DETERMINING AND FILLING STEPS UNTIL THE DETERMINING STEP RESULTS IN A NEGATIVE OUTCOME.
1150

FIG. 11C

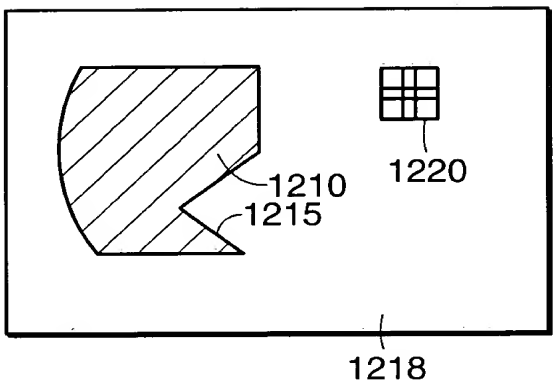

FIG. 12A

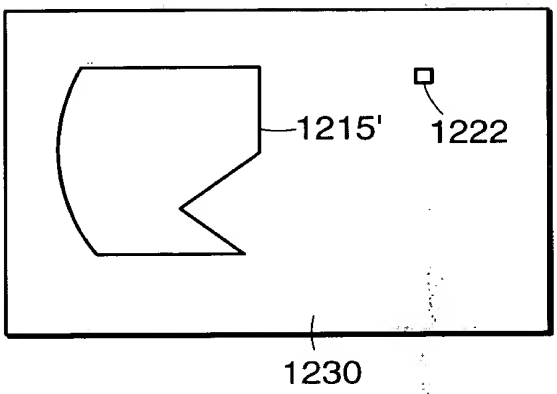

FIG. 12B

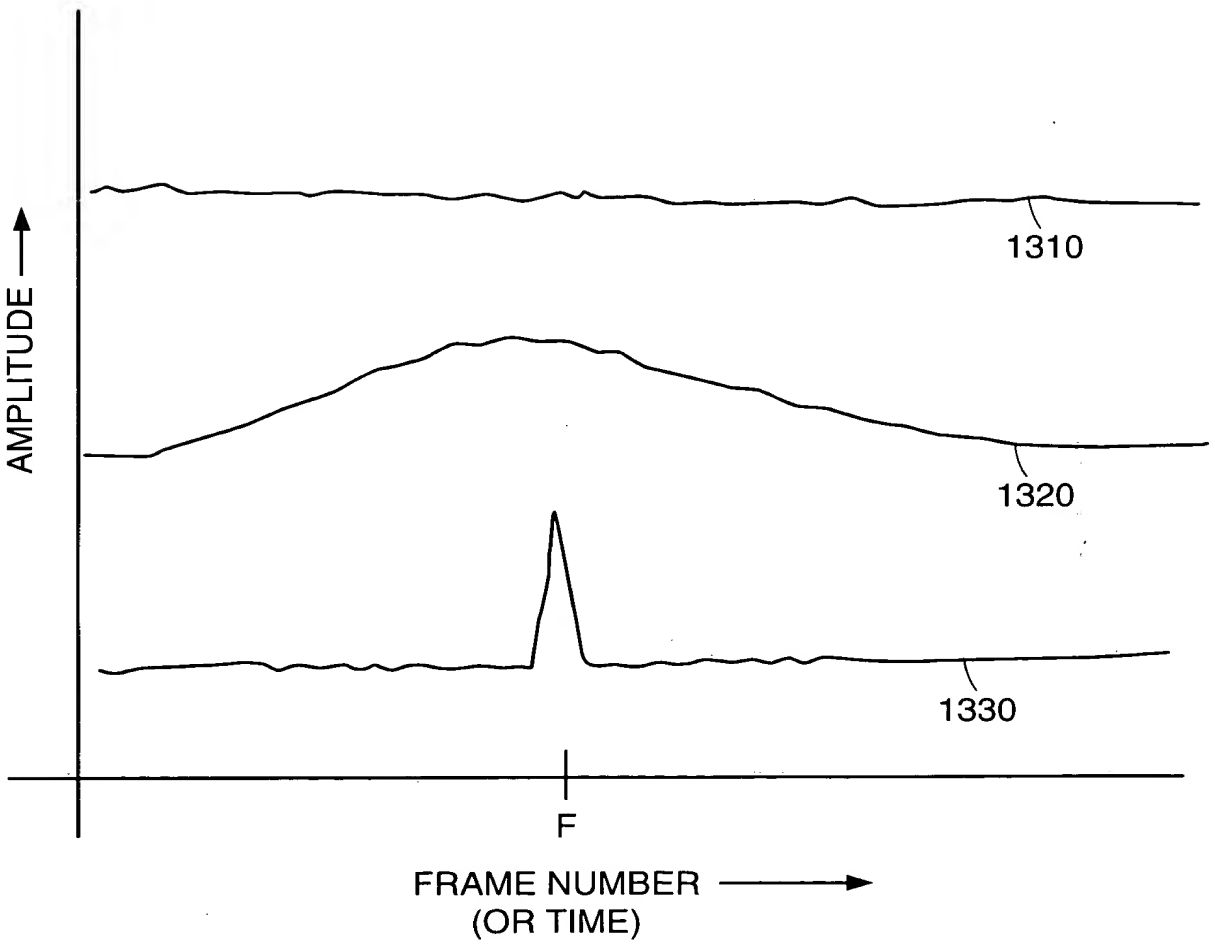

FIG. 13